

CLAIMS

1. A method for decoding a bitstream comprising the steps of:

(A) generating a first field picture in response to a frame picture of a first bitstream;

5 (B) generating a second field picture in response to said frame picture of said first bitstream; and

(C) generating a second bitstream comprising said first field picture and said second field picture.

2. The method according to claim 1, wherein said generating steps further comprise:

copying a frame header from said first bitstream into a first field header portion of a first field buffer and a second
5 field header portion of a second field buffer; and

modifying (i) a portion of said first field header portion to indicate a top field picture and (ii) a portion of said second field header portion to indicate a bottom field picture.

3. The method according to claim 1, wherein said generating steps further comprise:

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copying a plurality of slice rows from said first
bitstream to said first field buffer and said second field buffer,
5 wherein said copying alternates between said first and said second
buffers after each slice row.

4. The method according to claim 3, wherein said
generating steps further comprise:

adjusting a slice number of each slice row in said first
field buffer and said second field buffer to increment
5 consecutively.

5. The method according to claim 1, wherein step (C)
further comprises:

writing said first field picture and said second field
picture consecutively to said second bitstream.

6. The method according to claim 4, wherein step (C)
comprises:

writing said first field buffer followed by said second
field buffer to said second bitstream.

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7. The method according to claim 1, further comprising
the step of:

presenting said second bitstream to a video decoder.

8. The method according to claim 7, wherein said video
decoder is configured to support a field picture mode.

9. The method according to claim 7, further comprising:
presenting even and odd field lines on a television
monitor in response to said second bitstream.

10. An apparatus comprising:

means for generating a first field picture in response to
a frame picture of a first bitstream;

means for generating a second field picture in response
5 to said frame picture of said first bitstream; and

means for generating a second bitstream comprising said
first field picture and said second field picture.

11. An apparatus comprising:

a circuit configured to (i) generate a first field picture in response to a frame picture of a first bitstream, (ii) generate a second field picture in response to said frame picture
5 of said first bitstream and (iii) generate a second bitstream comprising said first field picture and said second field picture.

12. The apparatus according to claim 11, wherein said circuit comprises:

a first field buffer;

a second field buffer; and

5 a transform circuit configured to (i) copy a frame header from said first bitstream into a first field header portion of said first field buffer and a second field header portion of said second field buffer.

13. The apparatus according to claim 12, wherein said transform circuit is further configured to:

modify (i) a portion of said first field header portion to indicate a top field picture and (ii) a portion of said second
5 field header portion to indicate a bottom field picture.

14. The apparatus according to claim 12, wherein said transform circuit is further configured to:

copy a plurality of slice rows from said first bitstream to said first field buffer and said second field buffer, wherein
5 said copying alternates between said first and said second buffers after each slice row.

15. The apparatus according to claim 14, wherein said transform circuit is further configured to:

adjust a slice number of each slice row in said first field buffer and said second field buffer to increment
5 consecutively.

16. The apparatus according to claim 12, wherein said transform circuit is further configured to:

write an output from said first field buffer and an output from said second field buffer consecutively to said second
5 bitstream.

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17. The apparatus according to claim 11, further comprising:

a video decoder circuit configured to receive said second bitstream.

18. The apparatus according to claim 17, wherein said video decoder circuit is further configured to support a field picture mode.

19. The apparatus according to claim 17, wherein said video decoder circuit is further configured to present even and odd field lines on a television monitor in response to said second bitstream.

20. The apparatus according to claim 11, wherein said first bitstream comprises an intra-only MPEG-2 frame picture stream.